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On the existence of solutions of one nonlinear boundary-value problem for shallow shells of Timoshenko type with simply supported edges

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Abstract

© Published under licence by IOP Publishing Ltd.Solvability of one system of nonlinear second order partial differential equations with given initial conditions is considered in an arbitrary field. Reduction of the initial system of equations to one nonlinear operator equation is used to study the problem. The solvability is established with the use of the principle of contracting mappings. The method used in these studies is based on the integral representations for the displacements. These representations are constructed with the use of general solutions to the inhomogeneous Cauchy-Riemann equation.

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